EXHIBIT B

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(54) NETWORK SALES SYSTEM

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(73) Assignee: Soverain Software LLC, Chicago, IL (US)

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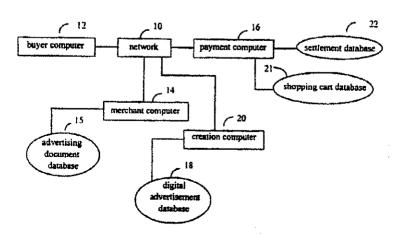
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ABSTRACT

A network-based sales system includes at least one buyer computer for operation by a user desiring to buy a product, at least one merchant computer, and at least one payment computer. The buyer computer, the merchant computer, and the payment computer are interconnected by a computer network. The buyer computer is programmed to receive a user request for purchasing a product, and to cause a payment message to be sent to the payment computer that comprises a product identifier identifying the product. The payment computer is programmed to receive the payment message, to cause an access message to be created that comprises the product identifier and an access message authenticator based on a cryptographic key, and to cause the access message to be sent to the merchant computer. The merchant computer is programmed to receive the access message, to verify the access message authenticator to ensure that the access message authenticator was created using the cryptographic key, and to cause the product to be sent to the user desiring to buy the product.



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Declaration of James E. Geringer in Support of Amazon. com, Inc's Motion for Leave to Amend its Answer and Counterclaims to Add Stuff.com.

Exhibit 1 of Geringer Declaration: Excerpts of Deposition of Michael Kuniavsky.

Exhibit 2 of Geringer Declaration: E-mail from Brooks Cutter to Mike Kuniavsky (Jun. 14, 1994).

Exhibit 3 of Geringer Declaration: Excerpts of Deposition of Richard Boake.

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Exhibit 6 of Geringer Declaration: E-mail from Andrew Payne to Winfield Treese, et al. (Jun. 15, 1994).

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EX PARTE REEXAMINATION CERTIFICATE ISSUED UNDER 35 U.S.C. 307

THE PATENT IS HEREBY AMENDED AS INDICATED BELOW.

Matter enclosed in heavy brackets [] appeared in the patent, but has been deleted and is no longer a part of the patent; matter printed in italics indicates additions made to the patent.

AS A RESULT OF REEXAMINATION, IT HAS BEEN DETERMINED THAT:

The patentability of claims 1-48 is confirmed.

New claims 49-168 are added and determined to be patentable.

- 49. A network-based sales system in accordance with claim 34, wherein the buyer computer activates the payment message by transmitting a message to the shopping cart computer that causes the payment message to be activated.
- 50. A network-based sales system in accordance with claim 34, wherein the network is a public packet switched
- 51. A network-based sales system in accordance with claim 34, wherein the network is an Internet.
- claim 34, further comprising:
 - a merchant computer that is interconnected with the buver computer and shopping cart computer by the computer
 - un advertisine document database:
 - wherein the merchant computer is programmed to fetch an advertising document from the advertising document database
- 53. A network-based sales system in accordance with 40 expiration time. claim 52, wherein the merchant computer is programmed to send one or more advertising documents to the buyer
- 54. A network-based sales system in accordance with claim 53, wherein the merchant computer is programmed to 45 provide a product requested by the user.
- 55. A network-based sales system in accordance with claim 54, wherein the merchant computer is programmed to respond to payment orders from the buyer computer without the shopping cart computer to ensure that the user is authorized to purchase the product;
 - wherein the merchant computer is programmed to respond to payment orders from the buyer computer mation in a database regarding which buyers are authorized to purchase which products.
- 56. A network-based sales system in accordance with claim 53, wherein the advertisement documents are in the form of summaries of newspaper or newsletter articles;
 - wherein prior to a user's product request, the merchant computer sends an advertising document to the buyer
- 57. A network-based sales system in accordance with claim 34, wherein the buyer computer transmits an initial 65 link that comprises information from which the shopping cart computer can create a session link message:

- wherein the session link is transmitted from the shopping cart computer to the buyer computer;
- wherein the session link message includes a session link authenticator for use by a computer to authenticate the session link message.
- 58. A network-based sales system in accordance with claim 57, wherein the session link authenticator is a cryptographic function of the session link contents.
- 59. A network-based sales system in accordance with 10 claim 58, wherein the buyer computer is programmed to cause the session link message to be sent to a computer in the network which is programmed to authenticate the session link message by examining the session link authenticator and which is programmed to respond to the session 15 link message based on state of the interaction between the buyer computer and the shopping cart computer.
 - 60. A network-based sales system in accordance with claim 34, wherein at least one of the requests comprises a shopping cart URL.
 - 61. A network-based sales system in accordance with claim 60, wherein the shopping cart URL comprises a domain identifier.
 - 62. A network-based sales system in accordance with claim 60, wherein the shopping cart URL comprises a merchant identifier.
- 63. A network-based sales system in accordance with claim 60, wherein the shopping cart URL comprises a merchant account identifier.
- 64. A network-based sales system in accordance with 52. A network-based sales system in accordance with
 - 65. A network-hased sales system in accordance with claim 60, wherein the shopping cart URL comprises a product identifier.
 - 66. A network-based sales system in accordance with claim 60, wherein the shopping cart URL comprises a duration time.
 - 67. A network-based sales system in accordance with claim 60, wherein the shopping cart URL comprises an
 - 68. A network-based sales system in accordance with claim 67, wherein the shopping cart computer transmits a document to the buyer computer indicating that the expiration time has passed.
 - 69. A network-based sales system in accordance with claim 60, wherein the URL comprises a buyer network address.
- 70. A network-based sales system in accordance with claim 69, wherein the buyer computer network address is the merchant computer having to communicate directly with 50 verified by matching it with a network address specified in the shopping cart URL
 - 71. A network-based sales system in accordance with claim 70, wherein if the computer network address verification fails, then the shopping cart computer sends a docuwithout the merchant computer having to store infor- 55 ment to the buyer computer indicating that access is not allowed.
 - 72. A network-based sales system in accordance with claim 60, wherein the shopping cart URL comprises an authenticator based on a cryptographic key;
 - wherein the authenticator is a function of contents of the shopping cart URL:
 - wherein the shopping cart computer verifies whether the shopping cart URL authenticator was created from the contents of the shopping cart URL using a cryptographic key.
 - 73. A network-based sales system in accordance with claim 72, wherein if the verification fails, the shopping cart

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computer transmits a document to the buyer computer indicating that access is denied.

74. A network-based sales system in accordance with claim 34, wherein the buyer computer activates the payment message by transmitting a message to the shopping cart 5 computer that causes the payment message to be activated;

wherein the shopping cart computer transmits a payment confirmation document to the buyer computer.

- 75. A network-based sales system in accordance with claim 74, wherein the payment confirmation document includes an open link and a continue link.
- 76. A network-based sales system in accordance with claim 75, wherein the shopping cart computer opens a new account in response to the user selecting the open link.
- 77. A network-bused sales system in accordance with claim 76, wherein the buyer computer sends a payment URL to the shopping cart computer that indicates that an account does not yet exist.
- 78. A network-based sales system in accordance with claim 77, wherein the shopping cart computer creates a new account document.
- 79. A network-based sales system in accordance with claim 78, wherein the shopping cart computer transmits the new account document to the buyer computer.
- 80. A network-based sales system in accordance with claim 79, wherein the new account document comprises a 25 challenge form that requests account information to be entered by the user.
- 81. A network-based sales system in accordance with claim 80, wherein the account information comprises a new account name and account password.
- 82. A network-based sales system in accordance with claim 80, wherein the account information comprises: a new account name, an account password, a credit card number, and an expiration date of the credit card.
- 83. A network-based sales system in accordance with 35 claim 80, wherein the account information comprises security information.
- 84. A network-based sales system in accordance with claim 34, wherein the shopping cart computer, in response to the plurality of shopping cart messages, causes an account name and password request message to be transmitted to the buyer computer.
- 85. A network-based sales system in accordance with claim 34, further comprising:
 - a merchant computer that is interconnected with the buyer and shopping cart computers by the computer network; and

an advertising document database;

- wherein the merchant computer is programmed to fetch an advertising document from the advertising document database;
- wherein the advertising document database is local to the merchant computer.
- 86. A network-based sales system in accordance with claim 85, wherein a creation computer updates the remote 55 advertising document database on the merchant computer.
- 87. A network-based sales system in accordance with claim 85, wherein the buyer computer transmits a purchase product message to the merchant computer, and, in response, the merchant computer provides a payment URL 60 to the buyer computer.
- 88. A network-based sales system in accordance with claim 87, wherein the buyer computer transmits the payment URL to a payment computer.
- 89. A network-based sales system in accordance with 65 claim 88, wherein the payment computer is the shopping cart computer.

90. A network-based sales system in accordance with claim 88, wherein the payment URL comprises an authenticator based on a cryptographic key;

wherein the authenticator is a function of contents of the payment URL.

- 91. A network-based sales system in accordance with claim 90, wherein the payment computer verifies whether the payment URL authenticator was created from the contents of the payment URL using a cryptographic key;
- if the verification fails, the payment computer transmits a document to the buyer computer indicating that access is denied.
- 92. A network-based sales system in accordance with claim 88, wherein the payment URL further comprises an expiration time.
- 93. A network-based sales system in accordance with claim 92, wherein the payment computer transmits a document to the buyer computer indicating that the expiration time has passed.
- 94. A network-based sales system in accordance with claim 88, wherein the payment URL comprises a buyer network address.
- 95. A network-based sales system in accordance with claim 94, wherein the buyer computer network address is verified by matching it with the network address specified in the payment URL;
 - if the verification fails, then the shopping cart computer sends a document to the buyer computer indicating that access is not allowed.
- 96. A network-based sales system in accordance with claim 88, wherein the payment computer transmits a payment confirmation document to the buyer computer;
 - wherein the payment confirmation document includes an open link and a continue link;
 - wherein in response to the user selecting the continue link, the payment computer instructs the buyer computer to provide an account name and password that have previously been provided by the buyer computer to the payment computer.
- 97. A network-based sales system in accordance with claim 96, wherein the buyer computer prompts the user for the account name and password by creating an account name prompt and a password prompt.
- 98. A network-based sales system in accordance with claim 97, wherein the payment computer verifies that the account name and password entered by the user match a previously provided account name and password.
- 99. A network-based sales system in accordance with claim 98, wherein if the verification fails, then the payment computer sends a document to the buyer computer indicating that access is not allowed.
- 100. A network-based sales system in accordance with claim 98, wherein if a payment amount exceeds a threshold, then the user is prompted for security information;
- wherein the payment computer verifies that the security information matches a previously provided account name and password;
- if the verification fails, then the payment computer sends a document to the buyer computer indicating that access is not allowed.
- 101. A network-based sales system in accordance with claim 98, further comprising a settlement database that is in communication with the payment computer;
- wherein the settlement database is used to determine whether the user has unexpired access to a domain identified in the payment message;

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102. A network-based sales system in accordance with claim 101, wherein the purchase of a product in a certain domain by a user account entitles access to other products 5 in the domain for free or at a reduced price.

103. A network-based sales system in accordance with claim 98, wherein the payment computer verifies whether the user account has sufficient funds or credit that satisfies a payment amount specified in the payment message,

if the verification fails, then the payment computer sends a document to the buyer computer indicating that the user has insufficient funds.

104. A network-based sales system in accordance with claim 98, wherein the payment computer records an end of 15 duration time in a settlement database.

105. A network-based sales system in accordance with claim 98, wherein the payment computer creates an access URL including an access URL authenticator that is a digital signature generated based on a cryptographic key;

wherein the access URL authenticator is a hash of other information in the access URL:

wherein the payment computer sends a redirect to the access URL to the buyer computer;

wherein the buver computer sends the access URL to a merchant computer.

106. A network-based sales system in accordance with claim 105, wherein the merchant computer verifies whether the access URL authenticator was created from said other information in the access URL using the cryptographic key:

if the verification fails, then the merchant computer sends a document to the buyer computer indicating that access is not allowed.

claim 105, wherein the merchant computer verifies whether a duration time for access has expired:

if the verification fails, then the merchant computer sends a document to the buyer computer indicating that the duration time has expired.

108. A network-based sales system in accordance with claim 105, wherein the merchant computer verifies that a buyer computer network address is the same as a buyer network address contained in the access URL;

if the verification fails, then the merchant computer sends 45 a document to the buyer computer indicating that access is not allowed.

109. The method of claim 39, wherein the buyer computer activates the payment message by transmitting a message to the shopping cart computer that causes the payment mes- 50 URL comprises a duration time. sage to be activated.

110. The method of claim 39, wherein the network is a public packet switched network.

111. The method of claim 39, wherein the network is an

112. The method of claim 39, wherein a merchant computer is interconnected with the buyer computer and shopping cart computer by the computer network;

wherein the merchant computer is programmed to fetch an advertising document from an advertising document 60 network address specified in the shopping cart URL. database

113. The method of claim 112, wherein the merchant computer is programmed to send one or more advertising documents to the buyer computer

114. The method of claim 113, wherein the merchant 65 computer is programmed to provide a product requested by the user.

115. The method of claim 114, wherein the merchant computer is programmed to respond to payment orders from the buyer computer without the merchant computer having to communicate directly with the shopping cart computer to ensure that the user is authorized to purchase the product;

wherein the merchant computer is programmed to respond to payment orders from the buyer computer without the merchant computer having to store information in a database regarding which buyers are authorized to purchase which products.

116. The method of claim 113, wherein the advertisement documents are in the form of summaries of newspaper or newsletter articles:

wherein prior to a user's product request, the merchant computer sends an advertising document to the buyer commuter.

117. The method of claim 39, wherein the buyer computer transmits an initial link that comprises information from which the shopping cart computer can create a session link 20 message:

wherein the session link is transmitted from the shopping cart computer to the buyer computer;

wherein the session link message includes a session link authenticator for use by a computer to authenticate the session link message.

118. The method of claim 117, wherein the session link authenticator is a cryptographic function of the session link contents.

119. The method of claim 118, wherein the buyer computer is programmed to cause the session link message to be sent to a computer in the network which is programmed to authenticate the session link message by examining the session link authenticator and which is programmed to respond to the session link message bused on state of the 107. A network-based sales system in accordance with 35 interaction between the buyer computer and the shopping curi computer.

120. The method of claim 39, wherein at least one of the requests comprises a shopping cart URL

121. The method of claim 120, wherein the shopping cart 40 URL comprises a domain identifier.

122. The method of claim 120, wherein the shopping cart URI. comprises a merchant identifier.

123. The method of claim 120, wherein the shopping cart

URL comprises a merchant account identifier. 124. The method of claim 120, wherein the shopping cart URL comprises a payment amount.

125. The method of claim 120, wherein the shopping cart URL comprises a product identifier.

126. The method of claim 120, wherein the shopping cart

127. The method of claim 120, wherein the shopping cart

URL comprises an expiration time.

128. The method of claim 127, wherein the shopping cart computer transmits a document to the buyer computer indicating that the expiration time has passed.

129. The method of claim 120, wherein the URL comprises a buyer network address.

130. The method of claim 129, wherein the buyer computer network address is verified by matching it with a

131. The method of claim 130, wherein if the computer network address verification fails, then the shopping cart computer sends a document to the buyer computer indicating that access is not allowed.

132. The method of claim 120, wherein the shopping carl URL comprises an authenticator based on a cryptographic

Dasment URL

150. The method of claim 148, wherein the payment URL comprises an authenticator based on a cryptographic key; 65 wherein the authenticator is a function of contents of the

a payment URL to the buyer computer 148. The method of claim 147, wherein the buyer com163. The method of claim 148, wherein the payment computer verify 149. The method of claim 148, wherein the payment computer verify computer is the shopping cart computer.

147. The method of claim 145, wherein the buyer computer transmits a purchase product message to the merchant computer provides computer, and, in response, the merchant computer provides

merchant computer.
146. The method of claim 145, wherein a creation computer updates the remote advertising document database on
the merchant computer.

untables. Wherein the advertising document database is local to the

an advertising document from an advertising document computer is programmed to fetch computer betwork;

145. The method of claim 39, wherein a merchani computer is interconnected with the buyer and shopping can

information comprises security information.

144. The method of claim 39, wherein the shopping cart
messages, causes an account name and password request
messages, causes an account name and password request

the credit card.

143. The method of claim 140, wherein the account

password, a credit card number, and an expiration date of computering the method of claim 140, wherein the account 158, information comprises: a new account name, an account 158, password, a credit card number, and expiration date of computering the computering the computering that the computering thas the computering that the computering that the computering that

information to be entered by the user

141. The method of claim 140, wherein the account information comprises a new account name and account

computer. 140. The method of claim 139, wherein the new account document comprises a challenge form that requests account

computer creates a new account document.
139. The method of claim 138, wherein the shopping can computer transmits the new account document to the buyer

137. The method of claim 136, wherein the buyer computer sends a payment URL to the shopping cart computer that indicates that an account does not yet exist.

138. The method of claim 137, wherein the shopping cart

136. The method of claim 135, wherein the shopping carr computer opens a new account in response to the user selecting the open link.

135. The method of claim 134, wherein the payment confirmation document includes an open link and a continue link

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134. The method of claim 39, wherein the buyer computer activates the payment message by transmitting a message to the shopping cant computer that causes the payment mess-

graphic key, 132, Wherein if the verification fails, the shopping cart computer transmits a document to the buyer computer traisers is desided.

contents of the shopping can URL using a crypto- 5 wherein the shopping can computer verifies whether the shopping can URL.

wherein the authenticator is a function of contents of the

ine payment nessage,
if the verification fails, then the payment computer sends
to document to the buyer computer indicating that the

source price.
163, The method of claim 158, wherein the payment computer verifies whether the user account has sufficient funds or credit that satisfies a payment amount specified in

or to use the unexpired access.

162. The method of claim 161, wherein the purchase of a product in a certain domain by a user account entitles access to other products in the domain for free or at a

access is not allowed.

161. The method of claim 158, wherein a settlement database is used to determine whether the user has unexpired access to a domain identified in the payment message;

25 wherein the user is presented with an option to repurchase

d document to the buyer computer indicating that

name and password;

wherein the payment computer verifies that the security

security information;

buyet computer indicating that access is not allowed amount exceeds a threshold, then the user is prompted for

name and password.

159. The method of claim 158, wherein if the verification fails, then the password.

138. The method of claim 157, wherein the payment computer verifies that the account name and password entered by the user match a previously provided account

payment computer
157. The method of claim 156, wherein the buyer computer prompts the user for the account name and password
by creating an account name prompt and a password

bishionally been provided by the buyer computer to the the payment computer instructs the bayment computer instructs the bayment computer instructs the bayment computer to wherein in response to the user selecting the continue link, wherein in k and a continue link.

wherein the payment confirmation document includes an buyer computer;

access is not allowed.

156. The method of claim 148, wherein the payment computer transmits a payment confirmation document to the

if the verification fails, then the shopping cart computer sends a document to the buyer computer indicating that

155. The method of claim 154, wherein the buyer computer network address is verified by matching it with the network address specified in the payment URL;

indicating that the expiration time has passed.
154. The method of claim 148, wherein the payment URL comprises a buyer network address.

further comprises an expiration time.

153, The method of claim 152, wherein the payment computer transmits a documen to the buyer computer.

is denied. 152. The method of claim 148, wherein the payment URI.

qochweni to the buyer computer indicating that access if the verification fails, the payment computer transmits a cryptographic key;

151. The method of claim 150, wherein the payment computer verifies whether the payment URL authenticator was created from the contents of the payment URL using a

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164. The method of claim 158, wherein the payment computer records an end of duration time in a settlement database.

165. The method of claim 158, wherein the payment computer creates an access URL including an access URL 5 authenticator that is a digital signature generated based on a cryptographic key;

wherein the access URL authenticator is a hash of other information in the access URL,

wherein the payment computer sends a redirect to the 10 access URL to the buyer computer;

wherein the buyer computer sends the access URL to a merchant computer.

166. The method of claim 165, wherein the merchant computer verifies whether the access URL authenticator was created from said other information in the access URL using the cryptographic key;

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if the verification fails, then the merchant computer sends a document to the buyer computer indicating that access is not allowed.

167. The method of claim 165, wherein the merchant computer verifies whether a duration time for access has expired;

if the verification fails, then the merchant computer sends a document to the buyer computer indicating that the duration time has expired.

168. The method of claim 165, wherein the merchant computer verifies that a buyer computer network address is the same as a buyer network address contained in the access URL;

if the verification fails, then the merchant computer sends a document to the buyer computer indicating that access is not allowed.

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